

(1) INTERNATIONAL PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

Rec'd PCT/PTO 17 DEC 2004

(43) International publication date
24 December 2003 (24.12.2003)

PCT

(10) International publication number
WO 03/106054 A1

(51) International patent classification⁷: B05D 1/38,
C08J 5/12, 7/04

(21) International application number:
PCT/FR03/01831

(22) International filing date: 17 June 2003 (17.06.2003)

(25) Language of filing:

French

(26) Language of publication:

French

(30) Details relating to the priority:
02/07445 17 June 2002 (17/06/2002) FR

(71) Applicant (for all the designated States except US):
RHODIA CHIMIE [FR/FR]; 26, quai Alphonse Le
Gallo, F-92100 Boulogne-Billancourt (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HOWE,
Fabienne [FR/FR]; 15, rue Jean Moulin, F-69300
Caluire (FR). POUCHELON, Alain [FR/FR]; 2, rue
G. Courteline, F-69330 Meyzieu (FR).

(74) Representatives: FLEURANCE, Raphaël etc.;
Cabinet Plasseraud, 84, rue d'Amsterdam, F-75440
Paris Cédex 09 (FR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE,
DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS,
MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,
LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before expiry of the deadline set for modification of the claims,
will be republished if modifications are received

For the two-letter codes and other abbreviations, refer to "Explanatory
notes relating to codes and abbreviations" appearing at the beginning
of each ordinary number of the PCT Gazette.

(54) Title: PROCESS FOR THE PRODUCTION OF AN ASSEMBLY COMPRISING SEVERAL SILICONE ELEMENTS
CROSSLINKED BY POLYADDITION AND ADHERING FIRMLY TO ONE ANOTHER

(57) **Abstract:** The invention relates to a process for the production of an assembly comprising several silicone elements crosslinked by the polyaddition of \equiv Si-H units onto \equiv Si-alkenyl (preferably \equiv Si-vinyl) units, said elements adhering firmly to one another without detracting from the mechanical properties of the crosslinked silicone elements. Said process comprises the following essential steps: (I) forming (1st coating) a silicone element (i) with a liquid silicone preparation (i) comprising polyorganosiloxanes (POS) A with \equiv Si-vinyl units, (POS) B with \equiv Si-H units, a platinum catalyst C, optionally a \equiv Si-vinyl POS resin D, optionally a crosslinking inhibitor E, optionally an adhesion promoter F, optionally a mineral filler G, optionally a functional additive H for imparting specific properties; (II) crosslinking in such a way that (i) has a surface density SD of unreacted, residual vinyl, per nm^2 , of $0.0100 \geq SD \geq 0.0040$; (III) optionally repeating steps (I) and (II) n times (n = positive integer) to give n elements (i) that adhere to one another; (IV) forming (2nd coating) a silicone element (ii) with a liquid silicone preparation (ii) of the same type as that described above; (V) crosslinking to give crosslinked (ii) that adheres to (i). Application to the production of multilayer silicone coatings.